

ABSTRACT OF THE DISCLOSURE

An acceleration sensor is disclosed that has a structure in which elastic support arms are not broken even if subjected to an impact that may be caused during a usual handling. The acceleration sensor comprises a mass portion, a mass portion top plate fixed onto the mass portion, a rectangular thick support frame surrounding the mass portion, a frame top plate fixed onto the frame, and four elastic support arms hanging the mass portion in the center of the frame and bridging the mass portion top plate and the frame top plate. There are provided lateral grooves just below the support arms on side surfaces of the mass portion and on inner side surfaces of the frame. Due to the grooves, the mass portion top plate and the frame top plate have their portions bonded to the mass portion/ the frame and their portions protruding toward the support arms. Cross sections on boundaries between the bonded portions and the protruding portions are larger than those connecting the protruding portions to the support arms. Breakage of the elastic support arms is prevented, because the strain caused in the mass portion/the frame by an impact applied from outside is not directly transmitted to the support arms and is released in the protruding portions having a larger cross section than the support arms.